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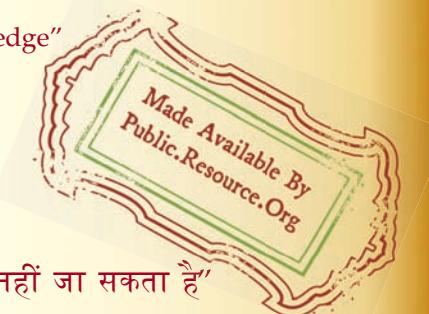
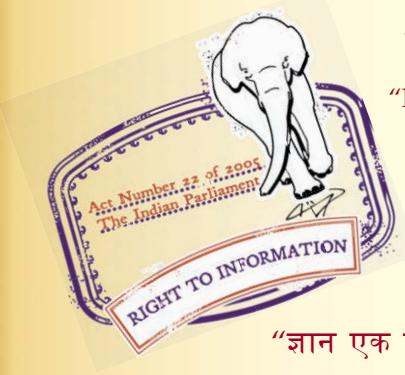
“Step Out From the Old to the New”

IS 10950 (1984): Phenthioate Dusting Powders [FAD 1:
Pesticides and Pesticides Residue Analysis]

“ज्ञान से एक नये भारत का निर्माण”

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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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IS : 10950 - 1984

Indian Standard
**SPECIFICATION FOR
PHENTHOATE DUSTING POWDERS**

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**INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

Gr 2

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Indian Standard

SPECIFICATION FOR PHENTHOATE DUSTING POWDERS

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AMENDMENT NO. 1 JULY 1994
TO
IS 10950 : 1984 SPECIFICATION FOR PHENTHOATE
DUSTING POWDERS

(**Page 6, ~~clause~~ 4.1**) — Substitute the following for the existing:

‘When **freshly** manufactured material in bulk quantity is offered for inspection, representative samples of the material shall be drawn and tested as prescribed in IS 10627 : 1983 within 90 days of its manufacture. When the material is offered for inspection **after** 90 days of its manufacture, sampling shall be **done as** prescribed in IS 10627 : 1983. However, the criteria for conformity of the material when tested, shall be the limits of tolerances, as applicable over the declared nominal value and given under clause 2.3 of the standard.’

(**PAD 1**)

Reprography Unit, BIS, New Delhi, India

Indian Standard

SPECIFICATION FOR PHENTHOATE DUSTING POWDERS

0. F O R E W O R D

0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 June 1984, after the draft finalized by the Pest Control Sectional Committee had been approved by the Agricultural and Food Products Division Council and the Chemical Division Council.

0.2 Phenthroate dusting powder formulations are used in the control of insect pests of agricultural crops.

0.3 Phenthroate dusting powder are generally manufactured to contain 2 percent (*m/m*) of phenthroate.

0.4 In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act, 1968* and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for phenthroate dusting powders.

2. REQUIREMENTS

2.1 Description — The material shall be in the form of homogeneous powder. It shall be free-flowing and devoid of lumps. Phenthroate, technical used in its manufacture shall have been uniformly mixed in suitable fillers, such as talc or pyrophyllite. The material when dusted from a hand rotary duster, shall issue freely without clogging or bridging.

*Rules for rounding off numerical values (revised).

2.1.1 Phenthroate, technical employed in the manufacture of dusting powder formulations shall conform to IS : 8293-1976*.

2.2 The material shall also comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR PHENTHOATE DUSTING POWDERS

SL NO.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST, REF TO	
			Appendix of Cl No. of IS : 8293- IS : 6940- 1976* 1982†	
(1)	(2)	(3)	(4)	(5)
i)	Phenthroate content, percent by mass	Nominal value as declared on the container (see 2.3)	A (see also 5.1.1 of this standard)	—
ii)	Sieving requirement, material passing through 75-micron IS Sieve‡, percent by mass, Min	90	—	12.1
iii)	Bulk density after compacting	Not to exceed the value obtained before compacting by more than 60 percent	—	12.2
iv)	Acidity (as H_2SO_4), percent by mass, Max	0.25	—	11.3
	<i>or</i>			
	Alkalinity (as $NaOH$), percent by mass, Max	0.05	—	11.3

*Specification for phenthroate, technical.

†Methods of test for pesticides and their formulations (*first revision*).

‡See IS : 460 (Part 1)-1978 'Specification for test sieves: Part 1 Wire cloth test sieves (*second revision*)'. BS sieve 200, ASTM Sieve 200 and Tyler sieve 200 have their apertures within the limits specified for the above IS sieve and may therefore, be used as 75-micron IS Sieve.

2.3 Phenthroate Content — When determined by the method prescribed in Appendix A of IS : 8293-1976*, the observed phenthroate content, percent

*Specification for phenthroate, technical.

by mass of any of the samples shall not differ from the declared nominal value by more than the percent tolerance as indicated below:

<i>Nominal Value, Percent</i>	<i>Tolerance, Percent</i>
Up to 9	+ 10 - 5 } of the nominal value
Above 9 and below 50	± 5 }
50 and above	+ 5 - 3 }

2.3.1 The actual value of the phentoate content in the formulation shall be calculated to the second decimal place and then rounded off to first decimal place before applying the tolerances as stipulated in 2.3.

2.3.2 The average content of all samples taken shall not be lower than the declared nominal content.

3. PACKING AND MARKING

3.1 **Packing** — The material shall be packed in clean and dry containers made of mild steel or tinplate or fibre-board or double hessian jute bags (see IS : 8115-1976*) or DW tarpaulin laminated jute bags (see IS : 8117-1976†) or HDPE woven sacks [see IS : 8069 (Part 2)-1976‡]. The containers shall also comply with general requirements given in 2 of IS : 8190 (Part 1)-1980§.

3.2 **Marking** — The containers shall bear legibly and indelibly the following information and any other additional information required under the *Insecticides Act* and Rules:

- a) Name of the material;
- b) Name of the manufacturer;
- c) Batch number;
- d) Date of manufacture;
- e) Net mass of contents;
- f) Nominal phentoate content, percent (m/m); and
- g) The minimum cautionary notice as worded in the *Insecticides Act* and Rules.

*Specification for double hessian jute bags for pesticides.

†Specification for DW tarpaulin laminated jute bags for pesticides.

‡Specification for High density polyethylene (HDPE) woven sacks for packing pesticides: Part 2 Woven bags.

§Requirements for packing of pesticides: Part 1 Solid pesticides (after maturing).

3.2.1 Each container may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4. SAMPLING

4.1 Representative samples of the material shall be drawn as prescribed in IS : 10627-1983*.

5. TESTS

5.1 Test shall be carried out by the methods as referred to in col 4 and 5 of Table 1.

5.1.1 For determination of phentoate content, weigh accurately a sample containing about 0.5g of phentoate. Extract in a Soxhlet apparatus using benzene as a solvent. After complete extraction, make up the volume to 25 ml in a volumetric flask and proceed as per Appendix A of IS : 8293-1976†.

5.2 Quality of Reagent — Unless specified otherwise, pure chemicals and distilled water (see IS : 1070-1977‡) shall be employed in tests.

NOTE — 'Pure chemical' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods for sampling of pesticidal formulations.

†Specification for phentoate, technical.

‡Specification for water for general laboratory use (second revision).

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Basic Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	Unit	Symbol
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	Unit	Symbol	Definition
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²

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